

**Ontario. Ministry of Natural Resources**

**Minfacts: Information on Ontario's  
Mineral Resources**





Ministry of  
Natural  
Resources

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- M35

## Information on Ontario's Mineral Resources

# MINIFACTS

ISSUE 5, August 1983

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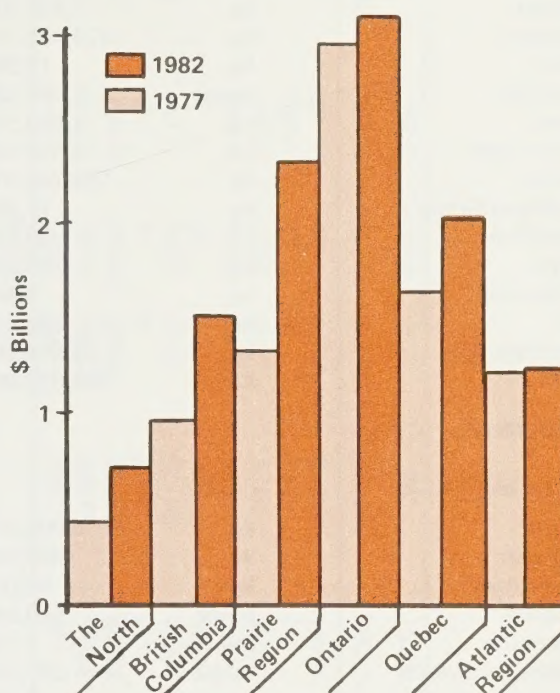
### 1982 IN RETROSPECT

Last year had its ups and downs. The number of claims staked kept the fourth largest staking rush in Ontario's history up for the third year in a row (see graph 1). However, mine closures, shutdowns to reduce inventory, and layoffs due to economic recession caused a lower value and volume of mineral output from that of 1981.

On the positive side, Ontario is still Canada's leading non-fuel mineral producer (see graph 2). And our metallic mineral production continues to be twice that of any other province — a full third of Canada's production by value coming from Ontario mines. Also, more than ten per cent of the world's dollar value of calcium, nickel, nepheline syenite, and uranium comes from Ontario. Thus mineral-based exports play a significant role in both the provincial and the federal economies, and help maintain some balance in Canada's international trading.

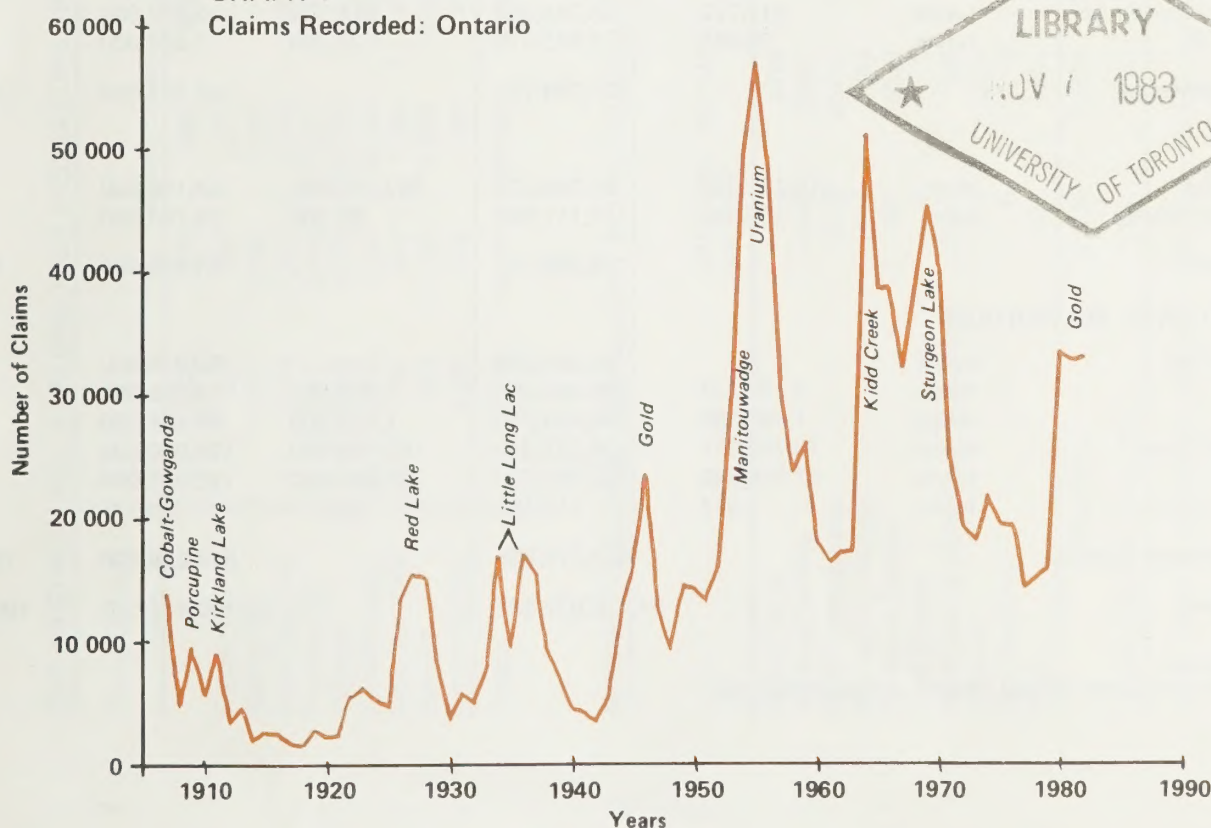
Ontario is Canada's largest producer of cadmium, cobalt, nickel and platinum group metals; uranium; nepheline syenite; salt; talc, soapstone and pyrophyllite; barite; sulphur recovered from smelter gas; plus each of the structural materials: sand and gravel, stone, clay products, lime, and cement.

GRAPH 2  
Non-fuel Mineral Production†



† includes value of uranium

GRAPH 1  
Claims Recorded: Ontario



# MINERAL PRODUCTION IN ONTARIO

		1981		1982 <sup>P</sup>		
	UNIT	VOLUME	\$ VALUE	VOLUME	\$ VALUE	%
METALS						
Bismuth	kg	312	2,170	2,000	11,000	
Cadmium	kg	609,215	2,959,469	475,000	1,437,000	
Calcium	kg	469,403	3,512,073	329,000	2,304,000	
Cobalt	kg	1,831,319	94,392,310	1,188,000	36,976,000	
Copper	kg	226,384,780	521,019,544	172,873,000	336,307,000	
Gold	kg	18,308	333,797,134	19,802	293,856,000	
Iron Ore	tonne	5,394,620	245,462,549	3,748,000	187,309,000	
Lead	kg	3,383,521	4,008,744	6,251,000	4,527,000	
Magnesium	kg	8,548,042	29,439,456	7,630,000	22,890,000	
Nickel	kg	130,268,510	1,001,217,989	63,065,000	412,930,000	
Platinum Group	kg	11,905	136,239,362	8,590	98,889,000	
Selenium	kg	28,576	679,823	28,000	526,000	
Silver	kg	328,779	136,969,048	345,000	108,448,000	
Tellurium	kg	4,445	159,575	3,000	103,000	
Tin	kg	88,774	1,479,882	34,000	601,000	
Uranium (U)	kg	4,859,497	522,011,958	4,955,000	550,586,000	
Zinc	kg	246,030,807	286,283,503	256,483,000	275,204,000	
Total Metals			3,319,634,589		2,332,904,000	74.1%
NON-METALS						
Barite	kg	5,000,000	1,100,000	n.a.	1,000,000	
Feldspar	kg	960,000	18,000	...	...	
Gemstones	kg	50,000	54,000	n.a.	65,000	
Gypsum	tonne	649,546	5,477,033	506,000	4,506,000	
Magnetite	tonne	7,218	78,214	...	...	
Nepheline Syenite	tonne	587,565	17,531,692	518,000	17,338,000	
Peat	tonne	9,205	1,201,993	4,000	525,000	
Quartz	tonne	427,189	9,787,492	295,000	7,805,000	
Salt	tonne	4,968,503	80,888,513	5,479,000	97,701,000	
Serpentine Filler	tonne	3,672	487,906	...	...	
Soapstone, Talc, Pyrophyllite	tonne	18,229	2,591,565	n.a.	3,429,000	
Sulphur in smelter gas	tonne	417,772	16,735,943	214,000	12,673,000	
Sulphur (S)	tonne	29,065	1,842,410	22,000	1,870,000	
Total Non-Metals			137,794,761		146,912,000	4.7%
FUELS						
Natural Gas	cu.m.	419,271,420	34,556,335	407,000,000	38,195,000	
Petroleum (Crude)	cu.m.	89,983	11,111,980	89,000	13,764,000	
Total Fuels			45,668,315		51,959,000	1.6%
STRUCTURAL MATERIALS						
Clay Products	tonne	...	66,660,263	n.a.	50,946,000	
Cement	tonne	3,787,237	205,062,550	2,800,000	215,208,000	
Lime	tonne	1,836,168	94,699,716	1,463,000	99,484,000	
Sand and Gravel	tonne	70,191,371	134,335,610	60,000,000	125,000,000	
Stone	tonne	37,546,346	126,905,736	32,000,000	128,000,000	
Terrazzo Chips	tonne	1,947	110,691	n.a.	n.a.	
Total Structural Materials			627,774,566		618,638,000	19.6%
Grand Total			\$4,130,872,231		\$3,150,413,000	100.0%

p — preliminary

Source: Mineral Statistics Section, Ministry of Natural Resources

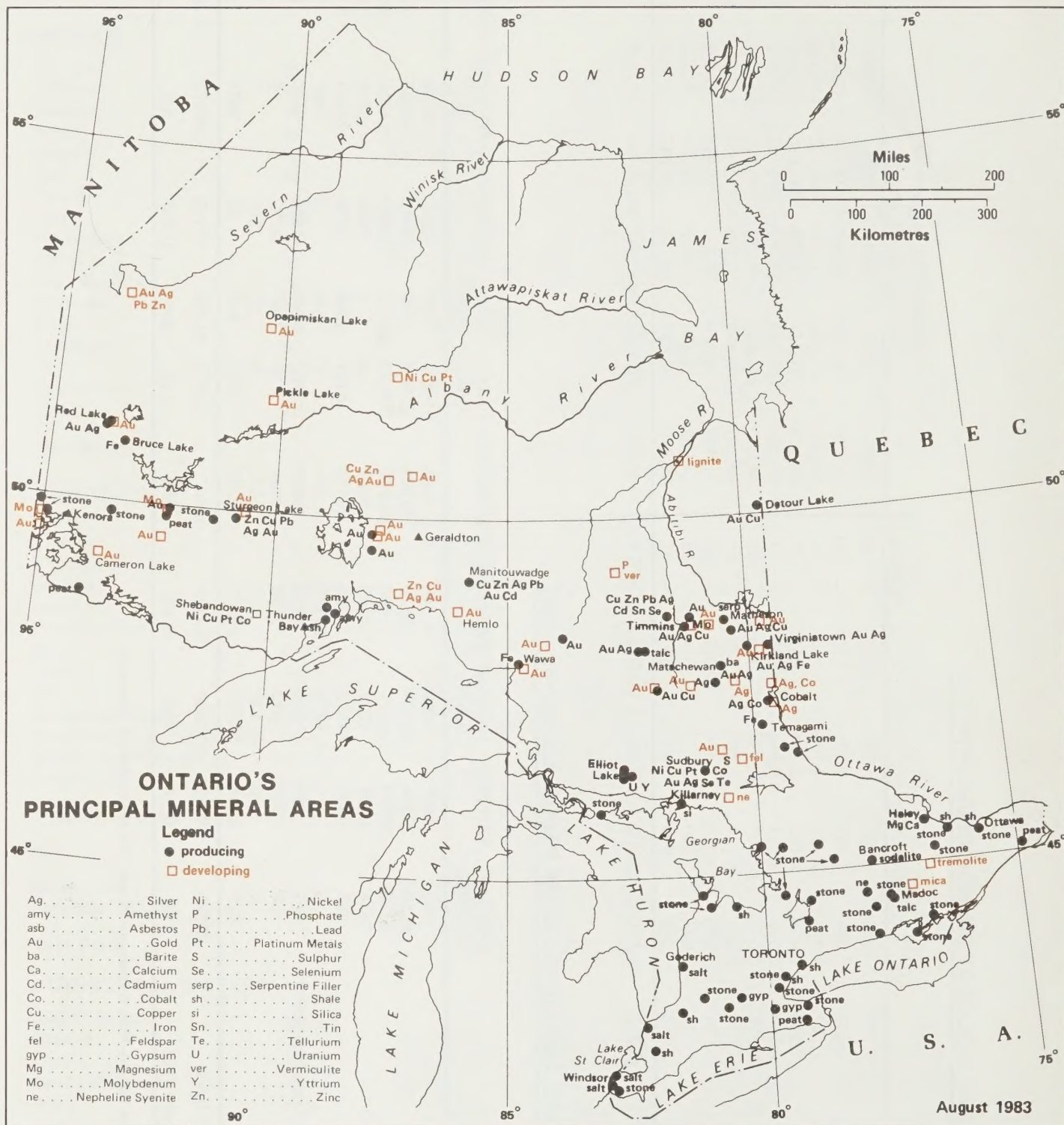
ONTARIO MINERAL EXPLORATION INDICATORS 1978-1982

Mining Division Offices	Claims Staked					Assessment Work Recorded (in man days of work)					% change	
	1978	1979	1980	1981	1982	1978	1979	1980	1981	1982	'81 - '82	'81 - '82
Kenora	808	984	1,877	2,121	1,579	34,934	24,167	21,368	72,732	68,438	- 26	- 6
Red Lake	1,207	1,065	2,220	1,719	942	50,997	62,949	71,975	106,872	118,775	- 45	+ 11
Sioux Lookout	2,018	1,012	3,485	2,861	842	95,010	61,249	71,696	287,636	167,359	- 71	- 42
Thunder Bay	3,517	3,099	5,527	6,844	10,226	51,299	101,799	127,288	280,765	292,273	+ 49	+ 4
Timmins	3,623	3,975	10,742	8,934	5,420	94,045	151,003	296,852	471,827	596,097	- 39	+ 26
Kirkland Lake	1,710	4,261	6,299	5,498	3,253	87,143	68,672	209,358	247,087	313,690	- 41	+ 27
Sault Ste. Marie	724	542	1,254	1,474	10,027	71,455	28,429	15,420	43,873	81,755	+ 580	+ 86
Sudbury	645	694	1,948	3,087	671	31,873	19,336	22,897	79,774	70,123	- 78	- 12
Eastern Ontario	1,058	539	548	485	354	38,815	38,428	30,719	24,617	27,326	- 27	+ 11
Totals	15,310	16,171	33,900	33,023	33,314	555,571	556,032	867,573	1,615,183	1,735,836	+ 0.9	+ 7½

MINING DIVISIONS: ASSESSMENT WORK RECORDED (DAYS) — 1982

	EASTERN ONTARIO			KENORA	LARDER LAKE	PATRICIA	PORCUPINE	RED LAKE	SAULT STE MARIE		SUDBURY	THUNDER BAY	PROVINCIAL TOTAL
Manual Labor	302	1074		3062	48		1585	206	223		1047	1246	8 793
Diamond Drilling	9546	23524		99526	35329		91203	23967	2760		19719	133035	438 609
Geophysical Surveys	8372	26270		133511	73486		359970	79662	67833		35557	114805	899 466
Geochemical Surveys	1414	5765		1222	7163		2067	0	9		1126	5322	24 088
Geological Surveys	481	5330		17926	13980		36178	6787	3568		7374	24437	116 061
Land Surveys	0	0		1200	14770		300	0	48		2	1840	18 160
Rock Drills & Other Power Equipment	5851	368		17455	4019		21865	3259	4663		1666	9120	68 266
Bulldozer	733	2553		319	3099		9134	16	2167		2202	0	20 223
Core Specimens	0	0		134	0		543	0	52		1350	0	2 079
Other	627	3554		39335	15465		73252	4878	432		80	2468	140 091
Total Days	27326	68438		313690	167359		596097	118775	81755		70123	292273	1 735 836
Increase (decrease) from 1981	11%	(6%)		27%	(42%)		26%	11%	86%		(12%)	4%	7.5%

Source: Mineral Statistics Section, Mineral Resources Branch, Ministry of Natural Resources



August 1983



Ministry of  
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Resources

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## Information on Ontario's Mineral Resources

# MINIFACTS

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### MINING — ECONOMIC STIMULANT

In 1980, mining contributed to Ontario

- 44,000 jobs for people in mining, smelting & refining
- \$860-million for wages and salaries
- \$600-million for supplies
- \$300-million for fuel and electricity
- \$160-million in mining tax

Mining is the extracting of a portion of the Earth's crust for use directly or for further processing. The importance of this activity is great, yet little recognition is given to the miners and their rocky toil.

Miners work in various environments — in *pits*, removing unconsolidated sands, gravel, cobbles and boulders for use as aggregate — in *quarries*, removing rock for crushing into aggregate or industrial uses, or delicately wedging out blocks for decorative uses — and in *open pit and underground mines*, blasting and removing non-metallic and metallic rock for industry. As consumers, we seldom see these mined commodities directly except perhaps as a polished stone countertop, table, or flagstone patio.

A clock radio, a ball point pen, salt, a telephone, a toothpaste, or a glossy magazine aren't perceived as mined products. Yet, each of these items and many more exist only because of their mined mineral content.

Most of the millions paid out by Ontario mining groups in 1980 (see Table 1) went for services, processing supplies and wages. In addition, more than 31,000 families and households in Ontario depend directly on mining to earn their living. All this generates provincial and federal sales and income taxes which, in addition to the provincial mining tax paid, are used to benefit us all.

Ontario produced 36 per cent of Canada's metallic mineral value in 1981, contributing greatly to the 20 per cent of Canada's exports classified as minerals and mineral products. Sales of exported products are essential to maintain a favorable balance of payments. Unfortunately, as this review is being written, the world demand for Ontario minerals has fallen considerably from the conditions prevailing in 1980.

Primary mineral production is dependent upon world market prices, anticipated consumption rates, the interest rates on capital requirements and the amount of ore already mined out. High interest rates, high metal inventories, reduced market prices and reduced consumption have affected sales. Many mines have suspended operations until demand picks up.

However, part of the future appears golden. At Detour Lake work is proceeding toward production of nearly 250 ounces of gold per day in late 1983. Expansion programs for gold are underway at Timmins, and exploration and staking continues near Hemlo on what may become yet another gold camp in the province.

TABLE 1 — 1980 ONTARIO MINERAL PRODUCTIVITY

	Mining Employment		Production tonnes (ore milled)	Production Costs Paid \$
	as miners	total		
GOLD QUARTZ	2,148	3,150	2,985,080	101,745,797
URANIUM	2,987	4,848	5,808,368	213,318,879
IRON	989	2,261	17,259,978	138,156,347
COPPER-GOLD-SILVER	1,926	3,349	7,629,319	159,888,080
NICKEL-COPPER	8,952	11,704	13,556,824	418,615,120
SILVER-COBALT	144	237	155,027	6,539,337
NON-METALLIC	730*	1,303	6,509,418	49,786,612
STONE QUARRIES*	550	950	36,006,256	39,000,000
SAND & GRAVEL PITS*	2,000	4,300	22,426,950	35,644,807
CEMENT MANUFACTURERS	n.a.	1,248	4,067,347	109,497,023
CLAY PRODUCTS MANUF.	n.a.	1,158	n.a.	38,911,038
LIME MANUFACTURERS	n.a.	423	1,683,447	34,061,200
1980 TOTALS	20,426+	31,671	118,088,014+	\$1,383,164,240

excluding smelting and refining, and oil and natural gas.

includes *only* payments made for wages and salaries, fuel, electricity, and process supplies.

\* approximation

# ONTARIO MINING OPERATIONS 1982\*

## METAL MINES

### Nickel — Copper

#### FALCONBRIDGE NICKEL MINES LTD.

East Mine (susp. June)  
Falconbridge Mine (susp. June)  
Fraser Mine (susp. June)  
Lockerby Mine (susp. June)  
North Mine (susp. June)  
Onaping Mine (susp. June)  
Strathcona Mine (susp. June)

Falconbridge P0M 1S0  
Falconbridge P0M 1S0  
Onaping P0M 2R0  
Falconbridge P0M 1S0  
Onaping P0M 2R0  
Onaping P0M 2R0  
Onaping P0M 2R0

#### INCO LIMITED

Coleman Mine (susp. March)  
Copper Cliff South Mine (susp. May)  
Creighton Mine (susp. May)  
Frood — Stobie Mine (susp. May)  
Garson Mine (susp. May)  
Levack Mine (susp. May)  
Little Stobie Mine (susp. May)  
McCreedy West Mine (susp. May)  
Shebandowan Mine (susp. July)

Levack P0M 2C0  
Copper Cliff P0M 1N0  
Creighton Mine P0M 1P0  
Frood Road, Sudbury  
Garson P0M 1V0  
Levack P0M 2C0  
Frood Road, Sudbury  
Levack P0M 2C0  
Shebandowan P0T 2T0

### Copper — Zinc — Lead

#### KIDD CREEK MINES

Kidd Creek Mine

#### MATTABI MINES LTD.

#### NORANDA MINES LTD.

"F" Group Mine  
Lyon Lake Division  
Geco Division

#### UMEX INCORPORATED

Thierry Mine (closed April)

Box 2002, Timmins P4N 7K1  
Box 190, Ignace P0T 1T0  
Box 190, Ignace P0T 1T0  
Box 190, Ignace P0T 1T0  
Box 100, Manitouwadge P0T 2C0  
Box 128, Pickle Lake P0V 3A0

### Uranium

#### AGNEW LAKE MINES LTD.

#### DENISON MINES LTD.

#### MADAWASKA MINES LTD. (closed June)

#### RIO ALGOM MINES LTD.

New Quirke Mine  
Panel Mine

Box 1970, Espanola P0P 1C0  
Box B-2600, Elliot Lake P5A 2K2  
R.R. 3, Bancroft K0L 1C0

Box 1500, Elliot Lake P5A 2K1  
Box 1500, Elliot Lake P5A 2K1

### Silver

#### AGNICO-EAGLE MINES LTD.

Beaver-Temiskaming Mine  
Castle Mine

#### PANCONTINENTAL MINING (CANADA) LTD.

Pan Silver Mine (susp. March)

#### TECK CORPORATION

Silverfields Division

Box 140, Cobalt P0J 1C0  
Box 140, Cobalt P0J 1C0  
Box 653, Cobalt P0J 1C0  
Box 680, Cobalt P0J 1C0

## INDUSTRIAL MINERAL MINES

### Amethyst

#### GUNNARD NOYES

Diamond Willow Mine

#### ONTARIO GEM COMPANY

#### THUNDER BAY AMETHYST MINING CO.

Pearl  
161 Blucher St., Thunder Bay P7B 4Y6  
Box 26, Thunder Bay P7C 4V5

### Barite

#### EXTENDER MINERALS OF CANADA

Matchewan P0K 1M0

### Cement

#### CANADA CEMENT LAFARGE LTD.

Woodstock Quarry  
Bath Quarry

#### LAKE ONTARIO CEMENT LTD.

Picton Quarry

#### ST. LAWRENCE CEMENT CO.

Ogden Point Quarry

#### ST. MARYS CEMENT LTD.

Bowmanville Quarry  
St. Marys Quarry

Box 608, Woodstock N4S 7Z5  
Box 160, Bath K0H 1G0  
Box 620, Picton K0K 2T0  
Colborne K0K 1S0  
Box 68, Bowmanville L1C 3K8  
Box 1000, St. Marys N0M 2V0

### Granite

#### FAIRMONT GRANITE LTD.

Battersea Quarry  
Belmont Quarry

#### NELSON GRANITE

#### UNIVERSAL GRANITE COMPANY LTD.

#### RIDEAU GRANITE

Box 60, Beebe, Que. J0B 1E0  
Box 60, Beebe, Que. J0B 1E0  
Vermilion Bay P0V 2V0  
Box 265, Vermilion Bay P0V 2V0  
Box 175, Seeleys Bay K0H 2N0

### Gypsum

#### CANADIAN GYPSUM CO. LTD.

#### DOMTAR CONSTRUCTION MATERIALS

#### WESTROC INDUSTRIES LTD.

Box 99, Hagersville N0A 1H0  
Caledonia N0A 1A0  
R.R. 1, Drumbo N0J 1G0

### Lime

#### ALGOMA STEEL CORP. LTD.

#### ALLIED CHEMICAL CANADA LTD.

#### BEACHVILLE LTD.

#### CHROMASCO LTD.

#### DOMTAR CHEMICALS GROUP

#### GUELPH DOLIME LTD.

#### REISS LIME CO. OF CANADA LTD.

#### THE STEEL COMPANY OF CANADA LTD.

Chemical Lime Works

#### STEETLEY INDUSTRIES LTD.

Canada Crushed Stone

Sault Ste. Marie P6A 5P2  
Box 2000, Amherstburg N9V 2Z6  
Box 190, Ingersoll N5C 3K5  
R.R. 1, Haley K0J 1Y0  
Box 100, Beachville N0J 1A0  
Box 36, Guelph N1H 6J6  
Box 938, Blind River P0R 1B0  
Box 98, Ingersoll N5C 3K1  
R.R. 2, Dundas L9H 5E2

Gold

CAMPBELL RED LAKE MINES LTD.  
CONS. LOUANNA GOLD MINES LTD.  
DICKENSON MINES LTD.  
    Dickenson Mine  
    Robin Red Lake  
DOME MINES LTD.  
GOLDLUND MINES LTD.  
GREENOAKS MINE  
HAYES LAKE GOLD MINE  
KERR ADDISON MINES LTD.  
KIDD CREEK MINES  
    Owl Creek Mine

NORTHERN CONCENTRATORS LTD.  
    Pifher Twp. Prop. (susp. Aug.)  
PAMOUR PORCUPINE MINES LTD.  
    Pamour Mine  
    Pamour 2 (Hallnor Mine) (susp. Jan.)  
    Pamour 3 (Aunor Mine)

Ross Mine  
Schumacher Division  
Canadian Arrow (closed April)  
Hollinger Mine (Timmins Prop.)  
Romfield Property (susp. Sept.)

PAN-EMPIRE JOINT VENTURE  
WILLROY MINES LTD.  
    Macassa Division

Iron

THE ADAMS MINE  
ALGOMA STEEL CORP. LTD.  
    Algoma Ore Division  
THE GRIFFITH MINE  
SHERMAN MINE

Magnesium/Calcium  
CHROMASCO LTD.

Box 10, Balmertown P0V 1C0  
Box 890, Geraldton P0T 1M0  
  
Balmertown P0V 1C0  
Balmertown P0V 1C0  
South Porcupine P0N 1H0  
Box 781, DRYDEN P8N 2Z4  
Gen. Del., Beardmore P0T 1G0  
Box 278, Schreiber P0T 2S0  
Virginiatown P0K 1X0  
Box 2002, Timmins P4N 7K1

Bag 2010, Timmins P4N 7X7  
Bag 2010, Timmins P4N 7X7  
Bag 2010, Timmins P4N 7X7  
Holytre P0K 1C0  
Bag 2010, Timmins P4N 7X7  
Bag 2010, Timmins P4N 7X7  
Bag 2010, Timmins P4N 7X7  
Bag 2010, Timmins P4N 7X7  
Box 300, Beardmore P0T 1G0

Box 550, Kirkland Lake P2N 3J7

Box 877, Kirkland Lake P2N 3K7

Wawa P0S 1K0  
Red Lake P0V 2M0  
Box 217, Temagami P0H 2H0

R.R. 1, Haley K0J 1Y0

Marble Chip

GRENVILLE AGGREGATES  
STOKLOSAR MARBLE QUARRIES  
    (1969) LTD.  
STEEP ROCK IRON MINES LTD.  
    Steep Rock Calcite Division

Nepheline Syenite  
INDUSMIN LTD.  
I.M.C. CHEMICALS GROUP

Peat (horticultural)  
ARCTIC PEAT MOSS CORP. LTD.  
ATKINS & DURBROW LTD.  
DU-NOR PRODUCTS

Quartz

INDUSMIN LTD.  
    Badgeley Island Quarry

Roofing Granules  
3M CANADA LTD.

Salt

CANADIAN ROCK SALT CO. LTD.  
    Ojibway Mine

DOMTAR CHEMICALS GROUP  
    Sifto Salt Division

ALLIED CHEMICAL CANADA LTD.  
CANADIAN SALT CO. LTD.  
DOW CHEMICAL OF CANADA

Serpentine Filler  
HEDMAN MINES LTD.  
    Matheson Operation

Sulphur  
CANADIAN INDUSTRIES LTD.

Talc

WILLIAM R. BARNES CO. LTD.  
    Canada Talc Mine  
STEETLEY TALC LTD.

Madoc K0K 2K0

Box 389, Madoc K0K 2K0

Box 245, Perth K7H 3E4

Nephton K0L 2T0  
Box 280, Havelock K0L 1Z0

71 Queen St., Barwick P0W 1A0  
Box 55, Port Colborne L3K 5V7  
Sioux Lookout P0V 2T0

Killarney P0M 2A0

Box 160, Havelock K0L 1Z0

Sandwich P.O. Box 7008,  
Windsor N9C 3Y7

Box 96, Goderich N7A 3Y9

Box 2000, Amerstburg N9V 2Z6  
30 Prospect Ave., Windsor N9C 3G3  
Corunna N0N 1G0

Box 590, Timmins P4N 7E7

Box 848, Copper Cliff P0M 1N0

Box 250, Madoc K0K 2K0  
Box 1245, Timmins P4N 7J5

\*excluding fuels, clay, shale, sand & gravel, crushed stone for aggregate  
prepared – October 1982

STORY OF A MINE

The history of the Pater Mine is interesting. Here, traces of copper mineralization exposed in a railway cut near Spragge, Ontario, were sampled in 1954 and followed by diamond drilling until enough copper bearing rock was discovered to constitute an orebody.

The mineralized zone was only two to four metres wide, about 275 metres long, but extended downward 1,220 metres. A headframe and shaft were constructed within sight of Highway 17, and further diamond drilling performed to outline some 816,000 tonnes of "ore" (98.1 per cent waste rock, 1.9 per cent copper with minor silver and gold). As copper prices were then low, due to the end of the Korean war, a decision was made not to mine this mineralized rock until metal prices rose enough to make the rock into ore. In 1960, the mineralized rock was reassessed and production of ore at approximately 900 tonnes per day began on January 2, 1961. The mine closed when the ore ran out in April 1970 — slightly more than nine years later.

Today grasses, shrubs and trees are covering the remains of the minesite. And what of these few acres temporarily used for mining that were so productive for only nine years?

- 2,079,726 tonnes of ore were mined and trucked to a nearby mill.
- 35,696 tonnes of copper were recovered worth, when produced, \$31,776,942.
- 4,339 kilograms of silver were recovered worth, when produced, \$238,470.
- 144 kilograms of gold were recovered worth, when produced, \$173,734.

These metals are sought and produced for the simple reason that they are needed. We require copper for electrical devices, for coins, for brass and bronze, for wire and pipe. Gold is used in jewelry, coinage, dentistry, electrical contacts in microelectronics, as gold leaf and in heat reflective window glass. Silver is an essential ingredient in all black and white photography, and is also used in jewelry, tableware, solder, dentistry, special batteries and in the electronics industry.

This mine disturbed five acres of land for the minesite, roadways and other cleared land; plus another 67 acres of land for the millsite and tailings pond. A total of only 72 acres used for just 17 years from the start of exploration to the end of the mine. But these 72 acres directly employed an average of 179 people over nine years to produce \$32.2-million worth of metals. A substantial return to the people of Ontario for the temporary use of this land.

A great many possibilities exist for the after use of mined lands — from forest to parkland or community use. At Timmins, filled tailings ponds are now used for community parks and shopping centres. Elsewhere abandoned mine-sites are now hidden amongst trees and shrubs, interesting ruins for the hiker who happens upon them and good collecting sites for the rockhound. In southern Ontario, rehabilitated pits and quarries are used for growing crops, housing subdivisions, industrial parks and recreational uses (swimming, golf or community parks).

TABLE 2 — ONTARIO TOTAL ASSESSMENT WORK (IN DAYS)

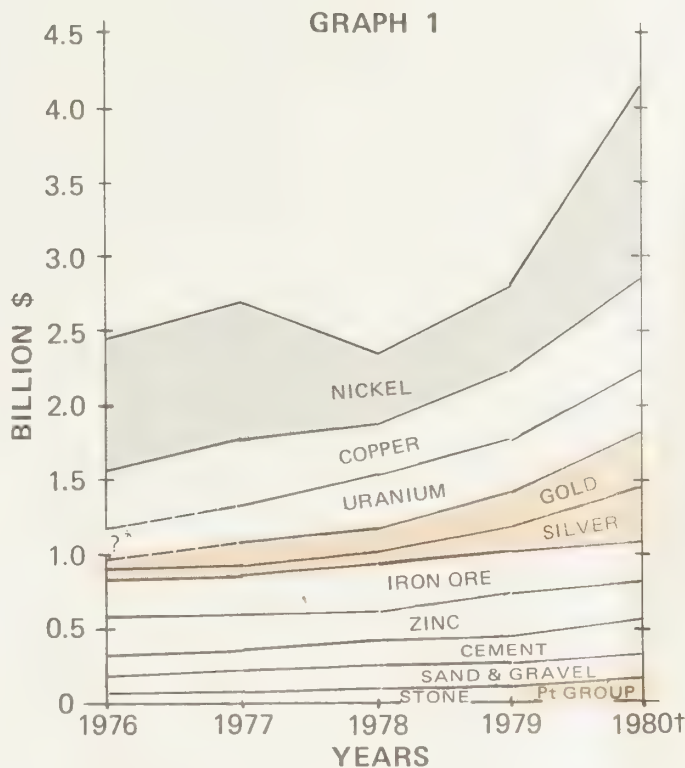
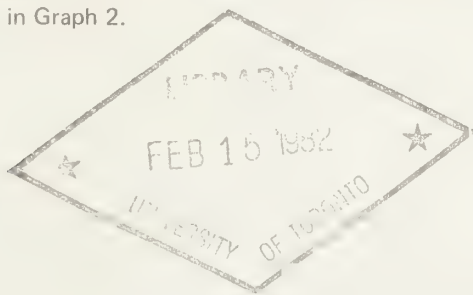
Mining Division	1982	1981	1981	% change*
	Jan — Jun	Jan — Jun	Jan — Dec	82 vs 81 Jan — Jun
EASTERN ONTARIO	11 581	7 988	24 617	+ 45.0
KENORA	35 961	43 496	72 732	— 17.3
LARDER LAKE	153 955	123 924	247 087	+ 24.2
PATRICIA	132 114	124 439	287 636	+ 6.2
PORCUPINE	379 593	213 533	471 827	+ 77.8
RED LAKE	97 199	26 400	106 872	+268.2
SAULT STE. MARIE	54 803	18 640	43 873	+194.0
SUDBURY	50 117	17 546	79 774	+185.6
THUNDER BAY	152 107	110 342	280 765	+ 37.9
TOTAL	1 067 430	686 308	1 615 183	+ 55.5

NOTE: \* [1982 (Jan-Jun) — 1981 (Jan-Jun)] / 1981 (Jan-Jun) x 100  
Data from Mining Recorder's records and compiled by Mineral Statistics Section, Ministry of Natural Resources.



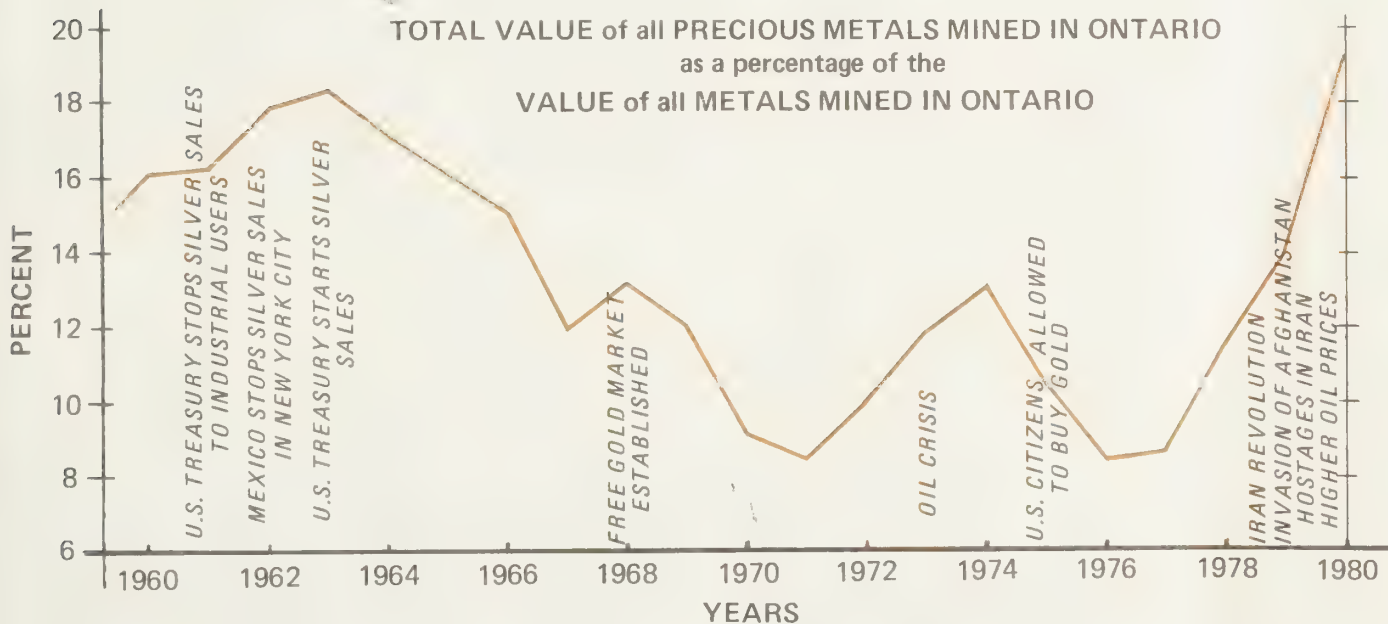
## ONTARIO'S TOP 10

Over the last 80 years, the lustre of Ontario's mining industry has always been metallic. The sparkle of nickel, copper, gold, silver, iron, and zinc usually grows brighter each year. And 1980 was no exception (see Graph 1). The volatility of nickel over the last 5 years is well shown against generally stable values for the sales of the other mineral commodities. Of special interest is the rising importance of the precious metals. The price increases of the last two years are well shown for gold and silver, however, it is not to be implied that this will necessarily continue. The value of platinum group metals (platinum, palladium, rhodium, iridium, ruthenium, osmium) rose enough to displace stone from the top 10 in 1980. Indeed, the value of all the precious metals mined in Ontario in 1980 was nearly \$900 million. The value of these precious metals as a proportion of Ontario's total metal mining, and some notable world events over the last 20 years, is presented in Graph 2.



† preliminary figures.

\* not reported, a figure of \$200 million has been arbitrarily chosen.



# ONTARIO MINING OPERATIONS 1980\*

## METAL MINES

### Nickel — Copper

#### FALCONBRIDGE NICKEL MINES LTD.

East Mine  
Falconbridge Mine  
Lockerby Mine  
North Mine  
Onaping Mine  
Strathcona Mine

Falconbridge, P0M 1S0  
Falconbridge, P0M 1S0  
Falconbridge, P0M 1S0  
Onaping, P0M 2R0  
Onaping, P0M 2R0  
Onaping, P0M 2R0

#### INCO METALS CO.

Clarabelle Mine  
Coleman Mine  
Copper Cliff South Mine  
Creighton Mine  
Frood Stobie Mine  
Garson Mine  
Levack Mine  
Little Stobie Mine  
McCreedy West Mine  
Shebandowan Mine

Copper Cliff, P0M 1N0  
Levack, P0M 2C0  
Copper Cliff, P0M 1N0  
Creighton Mine, P0M 1P0  
Frood Road, Sudbury  
Garson, P0M 1V0  
Levack, P0M 2C0  
Frood Road, Sudbury  
Levack, P0M 2C0  
Shebandowan, P0T 2T0

### Copper — Zinc — Lead

#### CORPORATION FALCONBRIDGE COPPER

Sturgeon Lake Mine

#### MATTABI MINES LTD.

#### NORANDA MINES LTD.

Geco Division

#### SELCO MINING CORP. LTD.

South Bay Mine

#### TEXASGULF METALS CO.

Kidd Creek Mine

#### UNION MINIERE EXPL. & MINING CORP. LTD.

Thierry Mine

Box 100, Manitowadge, P0T 2C0  
Box 2000, Ear Falls, P0V 1T0  
Box 2002, Timmins, P4N 7K1  
Box 128, Pickle Lake, P0V 3A0

## Uranium

#### AGNEW LAKE MINES LTD.

#### DENISON MINES LTD.

#### MADAWASKA MINES LTD.

#### RIO ALGOM MINES LTD.

New Quirke Mine

Box 1970, Espanola, P0P 1C0  
Box B-2600, Elliot Lake, P5A 2K2  
R.R. 3, Bancroft, K0L 1C0  
Box 1500, Elliot Lake, P5A 2K1

## INDUSTRIAL MINERAL MINES

### Amethyst

#### THUNDER BAY AMETHYST MINING CO. ONTARIO GEM COMPANY

178 Margaret St., Thunder Bay, P7A 6W6  
161 Blucher St., Thunder Bay, P7B 4Y6

### Barite

#### EXTENDER MINERALS OF CANADA

Matchewan, P0K 1M0

### Cement

#### CANADA CEMENT LAFARGE LTD.

Woodstock  
Bath

Box 608, Woodstock, N4S 7Z5  
Box 160, Bath, K0H 1G0

#### LAKE ONTARIO CEMENT LTD.

Picton

Box 620, Picton, K0K 2T0

#### ST. LAWRENCE CEMENT CO.

Ogden Point Quarry

Colborne, K0K 1S0

#### ST. MARYS CEMENT LTD.

Bowmanville  
St. Marys

Box 68, Bowmanville, L1C 3K8  
Box 1000, St. Marys, N0M 2V0

### Gypsum

#### CANADIAN GYPSUM CO. LTD.

#### DOMTAR CONSTRUCTION MATERIALS

#### WESTROCK INDUSTRIES LTD.

Box 99, Hagersville, N0A 1H0  
Caledonia, N0A 1A0  
R.R. 1, Drumbo, N0J 1G0

### Marble Chip

#### GRENVILLE AGGREGATES

Madoc, K0K 2K0

#### STOKLOSAR MARBLE QUARRIES(1969)LTD.

#### STEEP ROCK IRON MINES LTD.

Steep Rock Calcite Division

Box 389, Madoc, K0K 2K0  
Box 245, Perth, K7H 3E4

### Nepheline Syenite

#### INDUSMIN LTD.

#### I.M.C. CHEMICALS GROUP

Nephton, K0L 2T0  
Box 280, Havelock, K0L 1Z0

### Peat

#### ARCTIC PEAT MOSS CORP. LTD.

#### ATKINS & DURBROW LTD.

#### DIAMOND PEAT MOSS LTD.

#### DI-NOR PRODUCTS

71 Queen St., Barwick, P0W 1A0  
Box 55, Port Colborne, L3K 5V7  
Box 40, Newington, K0C 1Y0  
St. Catharines, L7M 2T0

Gold

CAMPBELL RED LAKE MINES LTD.  
DICKENSON MINES LTD.  
    Dickenson Mine  
    Robin Red Lake Mine  
DOME MINES LTD.  
KERR ADDISON MINES LTD.  
PAMOUR PORCUPINE MINES LTD.  
    Pamour Mine  
    Pamour 2 (Hallnor Mine)  
    Pamour 3 (Aunor Mine)  
    Ross Mine  
    Schumacher Division  
    Canadian Arrow  
    Matchewan Mine  
WILLROY MINES LTD.  
    Macassa Division

Silver

AGNICO-EAGLE MINES LTD.  
    Beaver-Temiskaming Mine  
    Coniagas Mine  
    Castle Mine  
SULPETRO MINERALS LTD.  
    Canadaka Mines Ltd.  
TECK CORPORATION  
    Silverfields Division

Iron

THE ADAMS MINE  
ALGOMA STEEL CORP. LTD.  
    Algoma Ore Division  
THE GRIFFITH MINE  
SHERMAN MINE  
Magnesium/Calcium  
CHROMASCO LTD.

Box 10, Balmertown, P0V 1C0  
  
Balmertown, P0V 1C0  
Balmertown, P0V 1C0  
South Porcupine, P0N 1H0  
Virginiatown, P0K 1X0  
  
Bag 2010, Timmins, P4N 7X7  
Bag 2010, Timmins, P4N 7X7  
Bag 2010, Timmins, P4N 7X7  
Holytre, P0K 1C0  
Bag 2010, Timmins, P4N 7X7  
Bag 2010, Timmins, P4N 7X7  
Bag 2010, Timmins, P4N 7X7  
  
Box 550, Kirkland Lake, P2N 3J7  
  
Box 140, Cobalt, P0J 1C0  
Box 140, Cobalt, P0J 1C0  
Box 140, Cobalt, P0J 1C0  
  
Box 350, Cobalt, P0J 1C0  
  
Box 680, Cobalt, P0J 1C0  
  
Box 877, Kirkland Lake, P2N 3K7  
  
Wawa, P0S 1K0  
Red Lake, P0V 2M0  
Box 217, Temagami, P0H 2H0  
  
R.R. 1, Haley, K0J 1Y0

Quartz

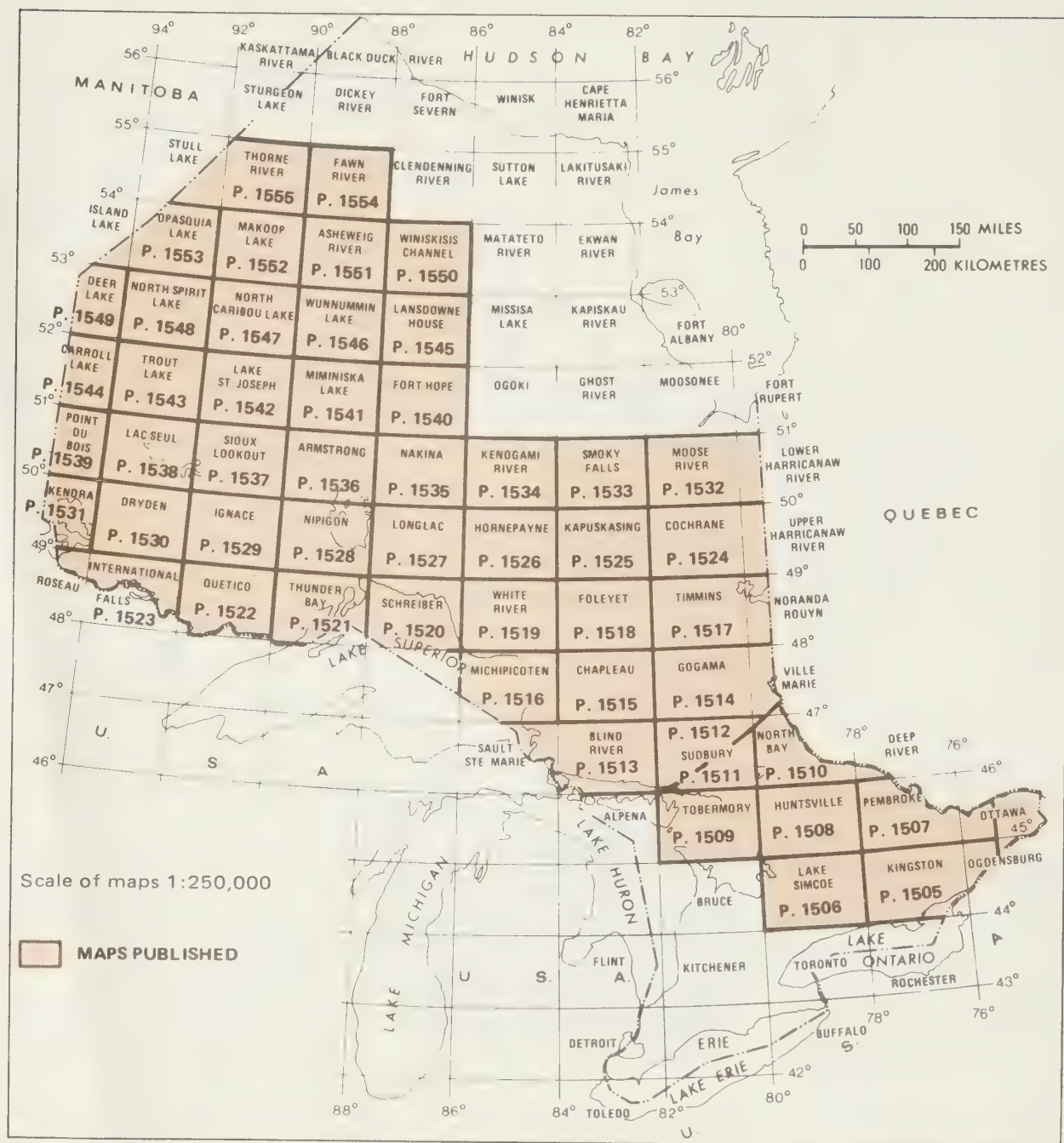
INDUSMIN LTD.  
    Badgeley Island Quarry  
  
Roofing Granules  
3M CANADA LTD.  
  
Salt  
CANADIAN ROCK SALT CO. LTD.  
    Ojibway Mine  
DOMTAR CHEMICALS GROUP  
    Sifto Salt Division  
ALLIED CHEMICAL CANADA LTD.  
CANADIAN SALT CO. LTD.  
DOW CHEMICAL OF CANADA  
  
Serpentine Filler  
HEDMAN MINES LTD.  
  
Talc  
CANADA TALC INDUSTRIES LTD.  
STEETLEY TALC LTD.

Killarney, P0M 2A0  
  
Box 160, Havelock, K0L 1Z0  
  
Sandwich P.O. Box 7008, Windsor, N9C 3Y7  
  
Box 96, Goderich, N7A 3Y9  
Box 2000, Amherstburg, N9V 2Z6  
30 Prospect Ave, Windsor, N9C 3G3  
Corunna, N0N 1G0  
  
Box 590, Timmins, P4N 7E7

Box 250, Madoc, K0K 2K0  
Box 1245, Timmins, P4N 7J5

*\*excluding fuels, clay, shale, sand & gravel, crushed stone for aggregate*

# ONTARIO GEOLOGICAL SURVEY—MINERAL POTENTIAL MAPS



The Ontario Mineral Potential Map Series, consisting of 51 maps, has been designed for those with little or no specialized knowledge of geology or the mineral industry. They present an evaluation of mineral potential on a province-wide basis, which can be used for resource and land use planning.

Each 1:250 000 map illustrates the bedrock and surficial geology. In addition it locates all known metallic and industrial minerals, representing the most up to date (1978) mineral compilation of Ontario.

In addition to explanatory notes, each map includes an account of Ontario's mineral industry and geology, a small inset map showing Ontario's bedrock geology, and lists of selected references and sources of information used.

**Order from:** Public Service Centre, Ontario Ministry of Natural Resources, Whitney Block, Queen's Park, Toronto, Ontario M7A 1W3. Price \$0.50 + tax.



Ministry of  
Natural  
Resources

Ontario

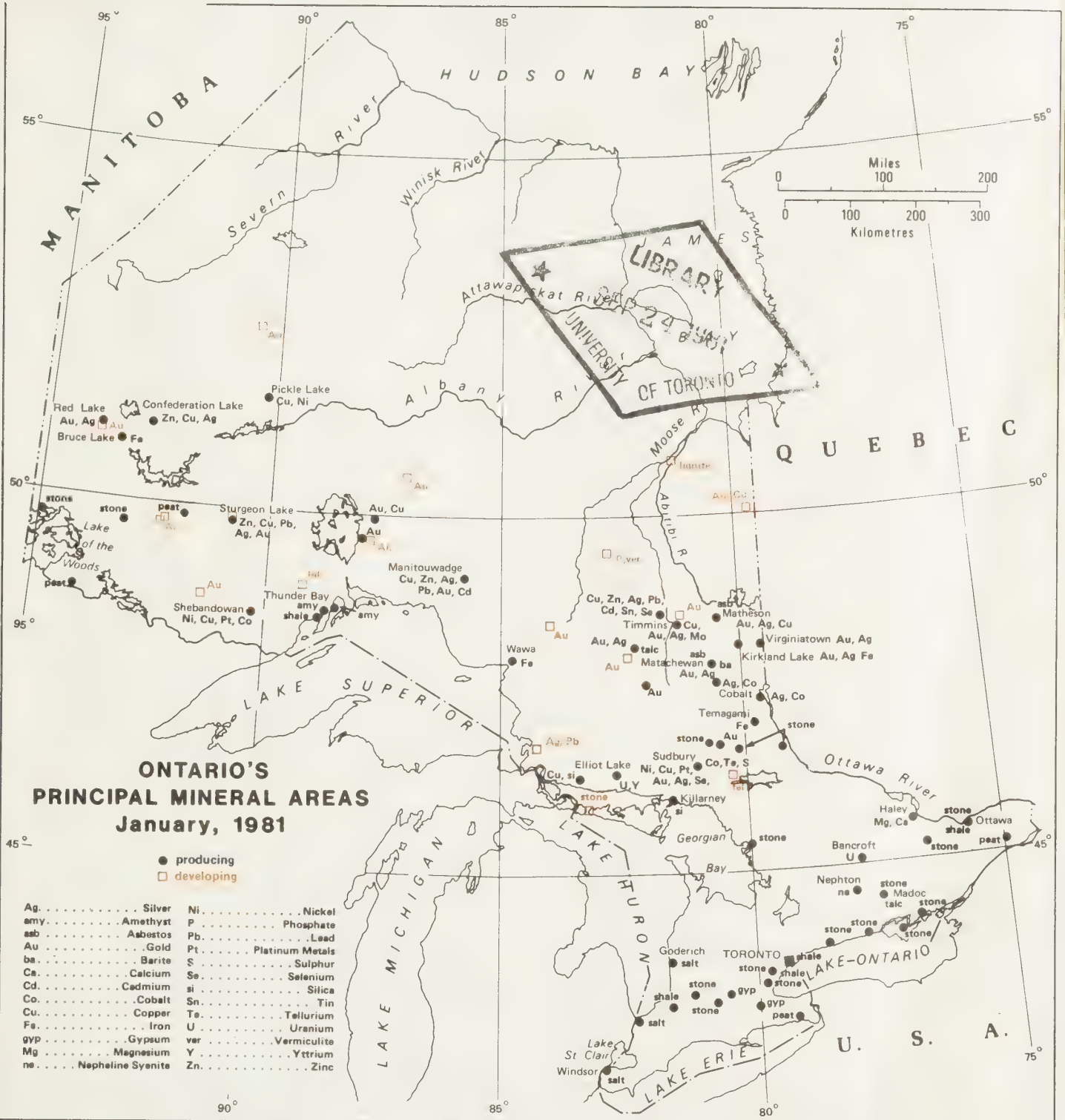
# Information on Ontario's Mineral Resources

# MINIFACTS

ISSUE 1, JULY 1981

ISSN 0229-9348

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Welcome to MINFACTS. We would like to introduce ourselves, the Mineral Resources Group of the Ministry of Natural Resources, to you in this first issue. We give you MINFACTS, a periodic issue of news and statistics about ourselves and Ontario's mineral resources. We propose to notify you of our activities and progress and to provide the answers to the questions most frequently asked of us. To inform you of what is mined and where in Ontario, how much is mined and its value, who the mining companies are and how to contact them, what mineral exploration activities were submitted to the Mining Recorders, where the Ontario Geological Survey's field projects are to be, and how significant the minerals industry is to Ontario.

The Mineral Resources Group under the guidance of the Executive Coordinator, George Jewett is divided into three parts. This triumvirate is composed of the Ontario Geological Survey, the Mineral Resources Branch, and the Mining Taxation & OMEP Office.

The Ontario Geological Survey (OGS) under the direction of Ed Pye is responsible for examining and studying the rocks and minerals of Ontario and determining their geological distribution, so as to provide a data base for mineral exploration, land-use planning, and policy development concerning Ontario's resource base. The geological, geophysical, and geochemical surveys of the OGS identify favorable locations for mineral and aggregate deposits, delineate areas of mineral potential, and provide increased knowledge and understanding of the geological history of Ontario.

Directed by Tom Mohide, the main objective of the Mineral Resources Branch is to assure the orderly development and optimum use of our mineral resources in line with the Ministry's policy of broadening the base of mineral development and processing in Ontario. Thus, the most important function of this Branch is to provide in-depth researched information on mineral resources and to provide mineral policy options to government. The Branch's newly improved computerized data base and use of computer modeling allows accurate mineral resource analyses and forecasts for Ontario and the world.

The Mining Taxation and OMEP Office, directed by Kumara Rachamalla is responsible for administering: The Mining Tax Act, a revenue generating unit offering incentives to mineral producers for exploration, production, and processing within the province; and The Ontario Mineral Exploration Program (OMEP) Act, begun September 1, 1980, an incentive program for non-producers to aid in new mine development and in turn new sources of tax revenue.

In addition to the Mineral Resources Group, the Ministry of Natural Resources also provides through its regional field organization researched information on mineral resources. Eight Regional Mineral Resource Coordinators and fourteen Resident Geologists are located throughout the province to be of local assistance.

# MINERAL PRODUCTION IN ONTARIO

		1979		1980 <sup>P</sup>	
	UNIT	VOLUME	\$ VALUE	VOLUME	\$ VALUE
METALS					
Cadmium	kg	672,837	4,795,677	665,000	4,919,000
Calcium	kg	455,713	2,152,146	525,000	3,033,000
Cobalt	kg	1,277,940	86,299,973	1,216,000	70,110,000
Copper	kg	192,946,145	457,472,114	233,297,000	611,232,000
Gold	g	19,172,867	221,473,644	18,360,000	387,925,000
Iron Ore	tonne	7,874,939	287,190,991	6,524,000	262,578,000
Lead	kg	6,968,696	9,206,177	10,268,000	11,217,000
Magnesium	kg	9,014,999	24,444,031	8,899,000	27,037,000
Nickel	kg	88,444,783	566,279,308	155,665,000	1,312,139,000
Platinum Group	g	6,156,716	56,333,561	12,584,000	155,480,000
Selenium	kg	18,325	581,356	44,000	1,101,000
Silver	kg	411,947	171,832,807	450,000	354,161,000
Tellurium	kg	3,130	161,667	5,000	236,000
Tin	kg	95,773	1,745,703	100,000	2,235,000
Uranium (U)	kg	4,005,263	375,793,251	4,275,000	413,481,000
Zinc	kg	289,357,404	278,881,182	262,594,000	252,409,000
Total Metals (82.7% of total)			2,544,643,588		3,869,293,000
NON-METALS					
Barite	tonne	...	596,000	...	750,000
Gemstones	kg	...	65,454	...	70,000
Gypsum	tonne	743,511	4,831,117	793,000	7,488,000
Nepheline Syenite	tonne	605,699	15,180,042	592,000	15,877,000
Peat	tonne	7,035	675,547	8,000	815,000
Quartz	tonne	980,279	8,965,420	1,294,000	10,108,000
Salt	tonne	5,188,664	67,900,216	4,800,000	72,358,000
Soapstone, Talc, Pyrophyllite	tonne	...	914,257	...	1,025,000
Sulphur in smelter gas	tonne	315,992	6,221,013	525,000	13,542,000
Sulphur (S)	tonne	20,293	673,199	22,000	1,200,000
Total Non-Metals (2.6% of total)			106,022,265		123,233,000
FUELS					
Natural Gas	'000 cu. m.	292,000	21,420,000	328,000	25,488,000
Petroleum Crude	cu. m.	92,000	8,259,000	97,000	9,447,000
Total Fuels (0.8% of total)			29,679,000		34,935,000
STRUCTURAL MATERIALS					
Clay Products		...	60,767,493	...	59,527,000
Cement	tonne	4,117,179	182,252,209	4,283,000	225,594,000
Lime	tonne	1,317,944	51,920,880	1,295,000	60,590,000
Sand and Gravel	tonne	90,515,630	151,847,457	121,254,000	174,900,000
Stone	tonne	39,830,992	113,477,990	34,019,000	132,000,000
Total Structural Materials (13.9% of total)			560,266,029		652,611,000
Grand Total (100%)			3,240,610,882		4,680,072,000

p — preliminary

Source: Mineral Statistics, Ministry of Natural Resources

Note: (% of total) refers to 1980 figures.

# MINING DIVISION; SUMMARY OF TRANSACTIONS 1980

	EASTERN ONTARIO	KENORA	LARDER LAKE	PATRICIA	PORCU- PINE	RED LAKE	SAULT STE MARIE	SUDBURY	THUNDER BAY	PROVIN- CIAL TOTAL
Mining Claims Recorded	548	1877	6299	3485	10742	2220	1254	1948	5527	33900
Mining Claims Cancelled	721	788	1834	1391	1778	1115	1059	737	1836	11259
Claims in Good Standing	1699	3208	12622	7068	18753	4301	2465	3569	11245	64930
Prospector's Licences Issued	737	89	271	49	273	62	101	180	291	2053
Prospector's Licences Renewed	1011	54	275	49	268	75	80	168	283	2263
Quarry Permits Issued	187	—	—	—	—	—	—	—	246	433
Applications For Lease	80	14	17	511	454	14	8	14	14	1126
Inspections Performed	292	1	27	4	4	—	—	—	10	338
Commissioner's Orders (Extensions)	878	475	2628	1028	1669	778	769	501	—	8726
<b>Total Revenue</b>	<b>\$57419</b>	<b>32932</b>	<b>118020</b>	<b>86863</b>	<b>184230</b>	<b>39387</b>	<b>23555</b>	<b>39280</b>	<b>121314</b>	<b>703000</b>

## ASSESSMENT WORK RECORDED (DAYS)

	EASTERN ONTARIO	KENORA	LARDER LAKE	PATRICIA	PORCU- PINE	RED LAKE	SAULT STE MARIE	SUDBURY	THUNDER BAY	PROVIN- CIAL TOTAL
Manual Labour	892	892	3819	217	7447	495	260	203	722	14947
Diamond Drilling	17648	15428	64454	42633	59993	38482	7099	7008	53418	306163
Geophysical Surveys	6665	3149	115031	13524	212208	30240	4430	5848	57483	448578
Geochemical Surveys	171	36	388	1052	—	—	—	280	6923	8850
Geological Surveys	2822	859	10981	2706	5246	871	1496	1020	5372	31373
Land Surveys	—	12	880	10800	470	560	2	360	80	13164
Rock Drills & Other Power Equipment	1835	382	5934	182	4308	385	186	759	1006	14977
Bulldozer	120	502	1345	—	369	288	693	2326	1135	6778
Core Specimens	99	—	50	36	482	—	9	—	—	676
Miscellaneous	467	108	6476	546	6329	654	1245	5093	1149	22067
<b>Total Days</b>	<b>30719</b>	<b>21368</b>	<b>209358</b>	<b>71696</b>	<b>296852</b>	<b>71975</b>	<b>15420</b>	<b>22897</b>	<b>127288</b>	<b>867573</b>



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